

Wild Turkey Landowner Brood Survey 2003

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Abstract

In the primary turkey range, the mean (SE) ratio of poults to hens observed averaged 2.82 ± 0.1 in 2003 compared to 2.70 ± 0.1 in 2002 and the long-term (1988-2002) average of 2.91 ± 0.1 . Fifty-five percent (55%) of hens observed were accompanied by poults during 2003, compared to 54% in 2002. The long-term average is 50.3%.

Methods

Originally, names and addresses for this survey were chosen from a master list compiled in the late 1980's with nonrespondents from previous years being systematically culled from the list. As the size of the list became smaller efforts to increase the size were made during the mid 1990's late 1990's and again in 2003. In the 1990's landowners of 40 or more acres were selected from a mailing list from the University of Wisconsin Extension rural landowner list. In 2003 landowners of 40 or more acres were selected from available county tax roles. Names and addresses were randomly drawn in proportion to ownership in each county. Active names from the previous master list were added to this new list, and nonrespondents are annually culled.

A post-paid card with survey objectives and instructions was mailed in June, July, and August to 10,029 landowners, some of whom were surveyed during previous years. Recipients were requested to report the number of turkey broods, poults/brood, and adult hens with or without a brood seen during June, July, and August. Crawford, Grant, Iowa, LaCrosse, Monroe, Richland, and Vernon counties have been surveyed annually since 1988 and make up Wisconsin's primary turkey range. Comparative statistics were obtained from Buffalo, Dane, Jackson, Juneau, Lafayette, Sauk, and Trempealeau counties beginning in 1990. Calumet, Columbia, Jefferson, Marinette, Pierce, Waukesha, and Waupaca counties were added for comparison in 1993 (Figure 1). The data were analyzed using the Statistical Analysis System (SAS).

Survey data were tabulated by county and month to obtain an index of poult/hen ratios and the proportion of hens with poults. Reports that were either not dated or that had observations from a month other than those specified were excluded.

Results

Reports were received from 3,065 respondents. The response rate was 31%. In the primary turkey range, the mean (SE) poult/hen (P/H) ratio averaged 2.82 ± 0.1 in 2003, compared to 2.70 ± 0.1 in 2002 (Table 1). The long-term P/H ratio averaged 2.91 ± 0.1 between 1988 and 2002 (Figure 2). Fifty five percent (55%) of hens were accompanied by poults in 2003, compared to 54% in 2002. The long-term average of hens with poults is 50.3%.

Within the 14 other traditional counties, the P/H ratio averaged 2.7 ± 0.1 in 2003, and 57% of hens were accompanied by poults. In 2002, the P/H ratio averaged 2.8 ± 0.1 , and 57% of hens were accompanied by poults. Results included observations of 1-3 hens with 1-15 poults and groups of 1-8 hens without poults.

The P/H ratio increased from 2.0 in June to 3.5 in August (Table 2). Similar trends were observed during 1988-2002 due in part to greater visibility of poults as they attained larger size during the summer. The increase may also be due to "gang brooding" behavior: a phenomenon where two or more hens with broods flock together. This behavior is initiated in late June or July.



Table 1. Comparison of poult/hen ratios within the seven traditional southwestern counties during 2002-2003.

Survey Initiation	County	Year	Reported Sightings	Total Poults	Total Hens	Poult/Hen
1988 - Primary Turkey Range	Crawford	2003	176	1,084	366	2.96
		2002	187	1,100	404	2.72
	Grant	2003	155	975	319	3.06
		2002	249	1,318	465	2.83
	Iowa	2003	197	1,044	452	2.31
		2002	251	1,208	508	2.38
	La Crosse	2003	321	1,871	705	2.65
		2002	322	1,845	696	2.65
	Monroe	2003	415	2,675	860	3.11
		2002	419	2,670	905	2.95
	Richland	2003	306	1,614	598	2.70
		2002	304	1,453	571	2.54
	Vernon	2003	103	605	204	2.97
		2002	127	733	277	2.65
	7 County Subtotal	2003	1,673	9,868	3,504	2.82
		2002	1,859	10,327	3,826	2.70
1990	Buffalo	2003	188	1,112	387	2.87
		2002	166	1,091	332	3.29
	Dane	2003	82	429	185	2.32
		2002	59	341	129	2.64
	Jackson	2003	394	2,304	814	2.83
		2002	277	1,560	618	2.52
	Juneau	2003	615	3,988	1,392	2.86
		2002	313	1,919	705	2.72
	Lafayette	2003	87	466	186	2.51
		2002	122	749	272	2.75
	Sauk	2003	184	962	428	2.25
		2002	144	838	309	2.71
	Trempealeau	2003	83	439	160	2.74
		2002	90	461	191	2.41
	7 County Subtotal	2003	1,633	9,700	3,552	2.73
		2002	1,171	6,959	2,556	2.72
1993	Calumet	2003	100	560	202	2.77
		2002	75	415	142	2.92
	Columbia	2003	338	1,859	777	2.39
		2002	368	2,315	776	2.98
	Jefferson	2003	228	946	553	1.71
		2002	38	225	76	2.96
	Marinette	2003	654	3,956	1,406	2.81
		2002	546	3,084	1,268	2.43
	Pierce	2003	166	1,384	357	3.88
		2002	208	1,565	462	3.39
	Waukesha	2003	24	127	37	3.43
		2002	44	256	99	2.59
	Waupaca	2003	287	2,160	683	3.16
		2002	293	2,149	678	3.17
	7 County Subtotal	2003	1,797	10,992	4,015	2.74
		2002	1,572	10,009	3,501	2.86

Table 2. Comparison of monthly changes in the poult/hen ratio within the seven primary turkey range counties during 2002-2003.

Month	Poult/Hen	
	2002	2003
June	2.0	2.0
July	2.9	2.9
August	3.0	3.5
Mean	2.6	2.8

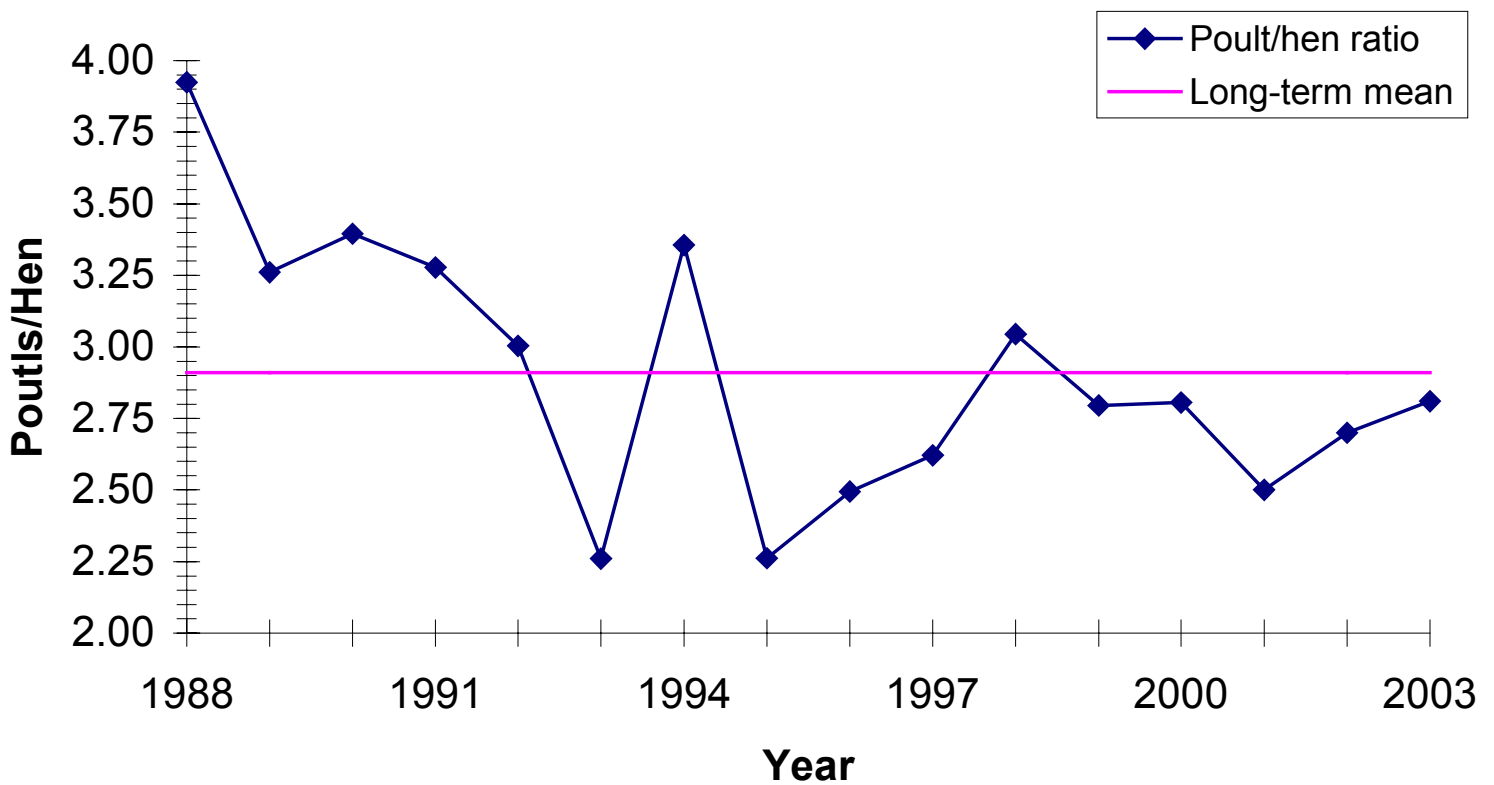


Figure 2. Trends in the poult/hen ratio within the seven primary turkey range counties surveyed from 1988-2003.